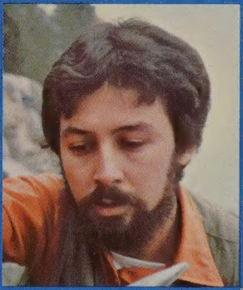
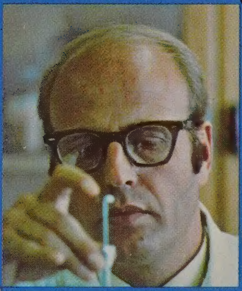
UNION CARBIDE

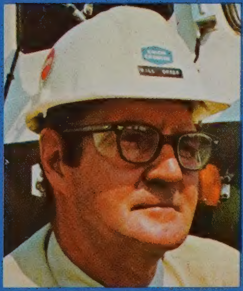
# Union Carbide Canada Limited

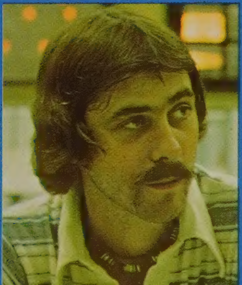
AR02

## Annual Report 1978









## Directors

†* Jacques de Billy
Senior Partner, Messrs. Gagnon, de Billy, Cantin, Dionne, Martin, Beaudoin & Lesage
Quebec City

Douglas F. S. Coate
Secretary and General Counsel
Union Carbide Canada Limited
Toronto

* John S. Dewar
President
Union Carbide Canada Limited
Toronto

†* Alec Flamm
Senior Vice-President
Union Carbide Corporation
New York

Alexander I. Hainey
Vice-President
Union Carbide Canada Limited
Toronto

W. Norman Kissick
Vice-President
Union Carbide Canada Limited
Toronto

Gordon W. Patterson
Vice-President
Union Carbide Canada Limited
Toronto

†* Ian D. Sinclair
Chairman of the Board
Canadian Pacific Limited
Montreal

† Elio E. Tarika
Senior Vice-President
Union Carbide Corporation
New York

†* James C. Thackray
President
Bell Canada
Montreal

†* Richard M. Thomson
Chairman
The Toronto-Dominion Bank
Toronto

*Audit Commitee
†Compensation Committee*

## Executive Officers

President
John S. Dewar

Vice-Presidents
Ralph C. Addison
Alexander I. Hainey
W. Norman Kissick
Robert H. Rastorp

Secretary and General Counsel
Douglas F. S. Coate

Treasurer
Vernon V. Garlick

Controller
George A. Kelly

## About Union Carbide

*Although generally classified as a chemical company, Union Carbide Canada Limited is uniquely diversified with component businesses in chemicals, plastics, gases, metals and carbon. It markets several well-known consumer products, including EVEREADY batteries, GLAD plastic household wrap and bags and PRESTONE II anti-freeze and coolant. The Company is 25 per cent Canadian owned, its common shares being held by almost 5,000 shareholders. The remaining 75 per cent equity is owned by Union Carbide Corporation, of New York. Approximately 4,700 people are employed in Union Carbide plants and sales offices across Canada.*

*The Annual Meeting of Shareholders will be held at 11.00 a.m. on Friday, April 27, 1979, at Le Château Champlain, Montreal.*

*Sur demande, il nous fera plaisir de vous envoyer l'édition française de ce rapport.*

## Operating and Functional Management

Robert J. Brema
General Manager, Home and Automotive Products

Richard C. Kugelman
General Manager, Battery Products

Robert J. Kulperger
General Manager, Gas Products

E. J. Peter Matzen
General Manager, Polyolefins

F. Gordon Murphy
General Manager, Carbon Products

Thomas R. Pezzack
General Manager, Casings and Films

George W. T. Richardson
General Manager, Metals

Robert C. Wilkes
General Manager, Chemicals

J. P. Gracie, M.D.
Director, Health and Environmental Affairs

André G. Lapalme
Director, Feedstocks and Energy Supply

Stewart N. Playford
Director, Purchasing and Materials Services

Robert A. Seath
Director, Public Relations

John A. Steinmiller
Director, Executive Staff

Charles W. van Winsen
Director, Human Resources

Eugene T. Woods
Director, Distribution

***Cover:** The spirit of a company is reflected in its employees and this year's annual report features a representative group of a major Union Carbide asset – its people.*

# To The Shareholders

Sales in 1978 exceeded half a billion dollars for the first time as all of Union Carbide Canada Limited's businesses recorded volume gains. However, market pressure on product prices and the pre-production expenses of a recently-completed major expansion combined to restrain net income growth.

Sales showed an overall improvement of 30 per cent to $528.2 million. Chemicals made the strongest proportionate advance, followed closely by plastics. The gases, metals and carbon businesses also achieved healthy sales improvements. Export sales almost doubled to reach $56 million.

Net income of $20.1 million, or $1.67 per common share, compared with $20.5 million, or $1.94 per common share, earned in 1977. Two basic factors inhibited earnings performance. First, manufacturing and distribution costs rose by six per cent while the average price of Union Carbide's products increased by only three per cent, principally because of a worldwide over-supply of polyethylene and ferroalloys. Second, depreciation charges were higher – $25 million in 1978, against $18 million a year earlier – as a result of the completion of the Company's world-scale polyethylene plant in Moore Township, Ontario, and a new air separation facility at Oakville.

Earnings per common share also were affected by the first full year's payment of dividends on the $60 million of preferred shares issued in 1977 to finance the Moore Township plant and other construction and investment projects.

Capital spending in 1978 was substantially reduced to $46.3 million, the lowest level since 1973 when Union Carbide launched its largest-ever expansion undertaking. In just four years, the Company's net assets have more than doubled to $672.7 million. The heavy investment of capital that has been made in new facilities in such a short time frame gives Union Carbide a solid base for future earnings growth. As world markets recover, the Company has the capacity in place to serve expanding customer needs and it has an extensive back-up reserve of capacity available through affiliates in the international Union Carbide organization.

The Company intensified its communications with government during the year, particularly on the issue of petrochemical feedstock pricing. A healthy petrochemical industry is essential to Canada's economic well-being but we endure serious competitive disadvantages with producers in the United States and other countries. The extent of these disadvantages is illustrated by the petrochemical industry's diminishing returns which now are well below those reported by its U.S. competition.

Arbitrary price increases for Canadian natural gas and crude oil feedstocks represent an intolerable burden on petrochemical producers and, in view of the industry's strategic importance, the situation must be remedied if Canada is to build a world-competitive industrial economy. The solution would appear to lie in the introduction of a new, two-level pricing policy; one level to encourage greater conservation and development of natural resources and a second, lower level that will stimulate the growth of those industries that upgrade a relatively small percentage of oil and gas feedstocks into a huge range of high value-added products with resultant employment and balance of trade benefits. Such measures have been found necessary by other petrochemical producing nations. Dialogue on this and other issues will remain a priority in the coming year.

The primary challenges for the short term are to achieve further productivity improvements and cost efficiencies. We are moderately optimistic about 1979 as these measures continue to take effect.

At year-end, we were saddened by the death of Fred B. O'Mara, Executive Vice-President of Union Carbide Corporation and a Director of Union Carbide Canada since 1973. Mr. O'Mara made a significant and lasting contribution to the Company during his five-year term on our Board. In January, 1979, Gordon W. Patterson retired as a Vice-President after a career of 43 years of significant service to Union Carbide Canada and Elio E. Tarika, a Senior Vice-President of Union Carbide Corporation, was appointed to the Board.

There were two new officer appointments in 1978. Ralph C. Addison became Vice-President with responsibility for the Gas Products and Carbon Products businesses and Robert H. Rastorp was named Vice-President responsible for Home and Automotive Products, Battery Products and Casings and Films.

On behalf of the Directors, I would like to extend my sincere thanks to the many capable employees who have participated with such willingness and dedication in helping Union Carbide Canada through the challenging transitional period of the past few years. They have, in a relatively short period, given the Company the underlying strengths that enable us to face the future with considerable optimism.

J S Dewar

President

# Operations Review

## Financial Highlights

No new long-term financings were required in 1978 as the previous year's issue of $60 million of preferred shares provided sufficient funds to complete Union Carbide's expansion program.

In the second quarter, $15 million (Canadian) was borrowed from an affiliate of Union Carbide Corporation. This loan was reduced to $7 million in the fourth quarter. The Company has no foreign currency debt obligations.

With receivables and inventories increasing 17 per cent during the year to support the 30 per cent improvement in sales, current assets were up 13 per cent to $221.4 million.

The Company has a 20 per cent interest in the Petrosar Limited primary petrochemical refinery at Corunna, Ontario. Petrosar supplies ethylene to Union Carbide's nearby Moore Township polyethylene plant. During the year, the Company purchased $34.9 million of Petrosar preference shares, $28.2 million of which were acquired in exchange for its holdings of subordinated debentures of Petrosar. The balance of $6.7 million represented additional investment required during Petrosar's initial year of full operation.

Long-term debt, including current portion, was reduced by $3.2 million in 1978 as sinking fund payments were made against the $8\frac{3}{8}$ per cent and $9\frac{3}{4}$ per cent debentures.

Depreciation at $24.7 million was up 38 per cent as a result of the start-up of the Moore Township and Oakville facilities. The Company's depreciation practice with respect to machinery and equipment at the Moore Township plant was reviewed during the year. The result of that review was a decision to provide depreciation at a rate of five per cent annually. Previously, facilities of this type have been written off at nine per cent a year, a rate which has proved to be too conservative.

While return on sales declined to 3.2 per cent, return on invested capital to 3.6 per cent and return on equity to 6.7 per cent, the common share dividend was maintained at an annual rate of 90 cents. Quarterly dividends have been paid without interruption since Union Carbide Canada's shares were offered to the public in 1964.

In 1978, common share dividends represented a payout of 54 per cent of earnings per common share. The book value per common share at year-end increased to $25.23 from $24.45 at the end of 1977.

## Chemicals

Union Carbide manufactures and markets more than 300 different organic chemicals for use in a wide variety of industrial applications.

Demand improved in most markets in 1978 as supplies tightened world-wide and the devalued Canadian dollar reduced the pricing advantage formerly enjoyed by offshore suppliers. Ethylene glycol, the principal chemical made at Union Carbide's Montreal East petrochemical complex, was a typical beneficiary of these changed market conditions. Ethylene glycol is used extensively in automotive anti-

## The Year At A Glance

| | 1978 | Per Common Share | 1977 | Per Common Share |
|---|---|---|---|---|
| Sales | **$528,207** | | $406,536 | |
| Net Income | **20,089** | | 20,500 | |
| Net Income after provision for dividends on preferred shares | **16,730** | **$1.67** | 19,428 | $1.94 |
| % of Sales | **3.2%** | | 4.8% | |
| % of Invested Capital* | **3.6%** | | 4.7% | |
| % of Common Shareholders' Equity* | **6.7%** | | 8.1% | |
| Dividends on Common Shares | **9,000** | **0.90** | 9,000 | 0.90 |
| % of Net Income (after preferred dividends) | **53.8%** | | 46.3% | |
| Net Income Reinvested | **7,730** | **0.77** | 10,696 | 1.07 |
| Total Assets | **672,668** | | 619,331 | |
| Construction Expenditures | **46,270** | | 82,299 | |
| Depreciation and Amortization | **24,992** | | 18,104 | |
| Common Shareholders' Equity (Book Value) | **252,270** | **25.23** | 244,540 | 24.45 |
| Number of Common Shareholders | **4,900** | | 5,200 | |
| Market Price Range: High | | **19.12** | | 19.25 |
| Low | | **16.62** | | 16.25 |

(dollars in thousands – except per share figures)

*Based on average of beginning and end of year figures. Invested capital includes short-term debt, long-term debt and Shareholders' Equity.

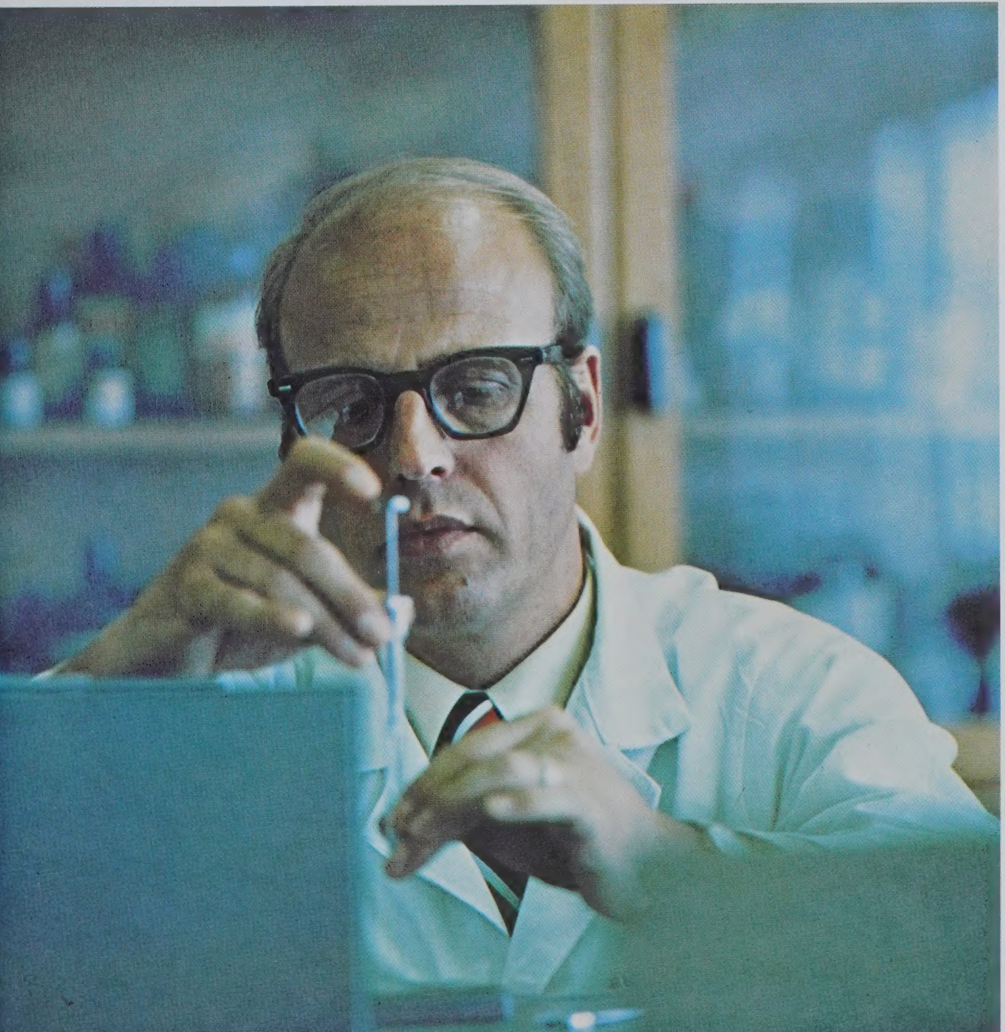
*Sales specialist Bill Judd, right, sells Union Carbide chemicals used to make foam for a broad range of everyday products, from mattresses to automotive seating. This discussion with an Ontario customer concerns a sample cut from a huge foam block.*

freeze and the Company attained record anti-freeze sales volume. Domestic competition was such, however, that price increases were barely sufficient to counter-balance higher operating and raw material costs. Ethylene glycol's other major end use is in the production of polyester synthetic fibre and the textile industry recorded only modest growth during the year.

High operating rates at Montreal East had a beneficial impact, helping to compensate for the lack of needed price adjustments. The plant's ethylene oxide and ethylene glycol production facilities are currently being streamlined in order to provide sufficient capacity to maintain market share and ensure world-competitive process economics.

During the year, Union Carbide participated in discussions with the Quebec Government and Gulf Canada Limited with a view to forming a consortium to consolidate and eventually expand the production of ethylene and other primary petrochemicals in the province. Negotiations on the project, which would provide a base for future growth for the Quebec petrochemical industry, are continuing.

Despite 1978's satisfactory sales gains, the chemical supply-demand balance remains uncertain, suggesting more modest sales increases in 1979.



*Hans Stapelfeldt is leader of the analytical services group at the Montreal East Technical Centre, which is responsible for providing research, development and technical support for Union Carbide's plastics and chemicals businesses. Here, he is injecting a chemical sample into a gas chromatographic testing unit.*

*At Union Carbide's Lindsay, Ontario, food casings plant, Philip Tamblyn operates a machine that dries continuous lengths of food casings before shipment to meat packers across Canada. Casings are used in the forming and processing of wieners, sausages and other meat products.*

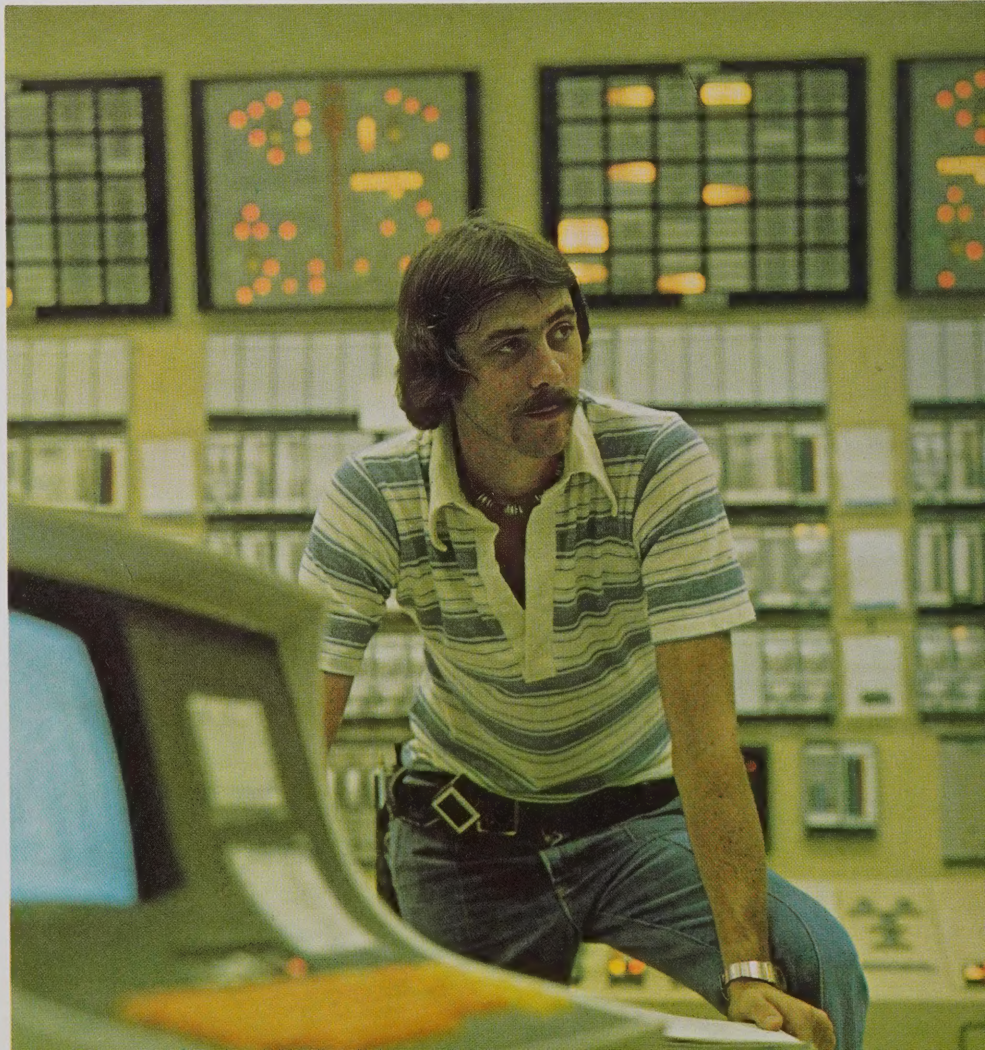
## Plastics

Union Carbide's productive capacity for polyethylene, the most widely used plastic, was more than doubled in 1978 when both the low-density and high-density facilities at the new Moore Township plant became fully operational. This Southwestern Ontario facility has an annual capacity in excess of 400 million pounds, complementing more than 300 million pounds of low-density polyethylene capacity at Montreal East.

Market demand for high-density resin remained high throughout the year. Sales in the first year of volume production were more than five times the previous year's level. Demand for low-density polyethylene was sluggish in the first half of the year but it experienced an upturn in the second half and is expected to show continued strength in 1979. World over-supply severely depressed selling prices, however.

In addition to manufacturing the basic resin, Union Carbide also extrudes polyethylene into film and converts it into the well-known GLAD line of home products.

The films business recorded good sales growth in spite of unsettled markets, plagued by excess industry capacity. Higher sales volumes and improved prices were insufficient, however, to offset higher costs. Commercial production of high-density polyethylene film was initiated at the Cowansville, Quebec, facility in 1978. The film is used primarily for retailers' bags.



*The three computer systems that monitor and control the production operation of the Moore Township, Ontario, polyethylene facility transmit flow rates, temperatures, pressures and other data to a central console, supervised here by technician Jerry Wyant.*

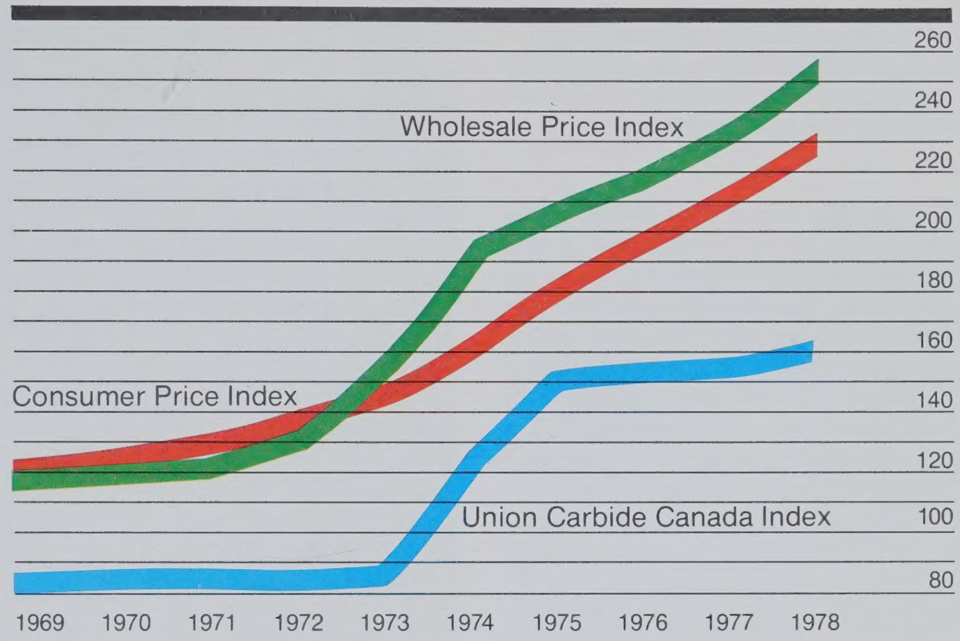
Once again, GLAD plastic wrap and bags led industry growth with price and volume contributing equally to sales gains. During the year, a new GLAD cupboard unit was successfully introduced across Canada.

Made entirely from a combination of Union Carbide low-density and high-density polyethylene, the unit offers consumers a space-saving, convenient method of disposing of kitchen waste.

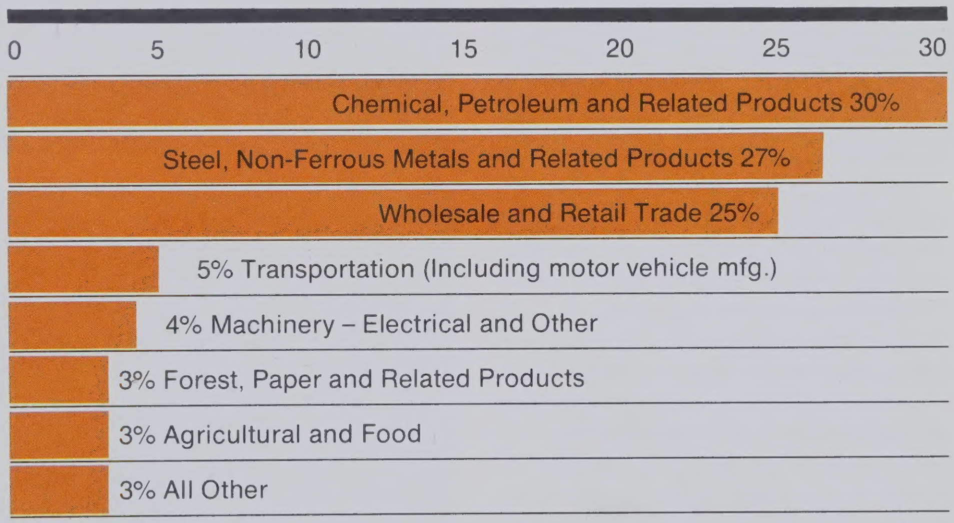
Sales of food casings for use in the production of wieners and other sausage products improved only marginally over 1977. Domestic sales were inhibited by protracted work stoppages at the plants of two major meat packer customers. Unanticipated export orders helped offset the domestic setback.

*Consumer products sales supervisor Art Seib (left) consults with a food broker in a Calgary store. Mr. Seib, whose territory is Western Canada, is one of four sales supervisors selling Union Carbide's consumer products to the food trade, mostly supermarkets.*

## Selling Prices (1961 index . . . 100)

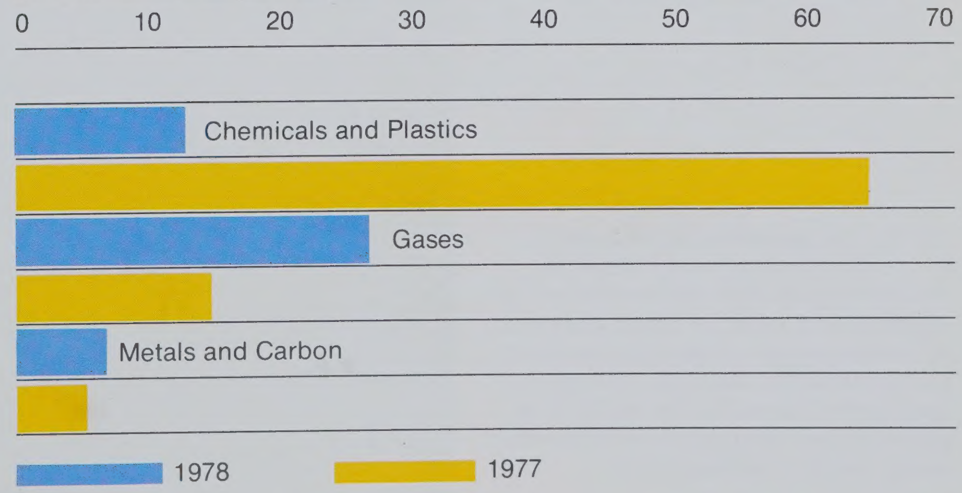


## Sales by Markets (per cent of sales)



## Construction Expenditures by Group

(in millions)



*Bill Orser, who is based at the Oakville, Ontario, air separation plant, drives large cryogenic transport trucks and has travelled more than a million miles without ever having an accident. A 25-year employee, he is among 15 drivers at the plant who deliver gas products across Ontario.*

# Gases

Considerably higher sales were achieved in 1978 by the Company's gases business. With 11 air separation plants strategically located across Canada, this business produces atmospheric gases for industrial and medical customers. It also manufactures and markets welding and cutting equipment and high-technology stream separation systems.

Expanded exports of gases to the United States, new oxygen accounts in Western Canada and the supply of a major industrial wastewater treatment system to Poland contributed to the improved sales performance. Modest sales gains are anticipated in 1979, reflecting forecasted weakness in the industrial economy.

Nitrogen production capacity was expanded during the year with the installation of a third plant at Sarnia, Ontario, which was integrated into a pipeline network supplying petroleum and petrochemical companies in the area.

Work progressed on a $23 million air separation facility at Fort Saskatchewan, Alberta. To be completed in late 1979, the new plant will be the largest of its kind in Western

*Mel Buchan, assistant superintendent of the new Fort Saskatchewan, Alberta, air separation plant, will be well familiar with the facility when it comes on-stream at the end of 1979 because he is keeping a close watch on its construction day by day. Among other features, the plant will be the largest of its type in Western Canada and one of the most energy-efficient on the continent.*

Canada and will produce high-purity gaseous and liquid oxygen and nitrogen for a range of industrial, medical and oil well servicing applications.

Also scheduled for completion during 1979 is a project to achieve operating economies in the welding products business by consolidating manufacturing, warehousing and distribution operations at a Mississauga, Ontario, facility.

Development activities in 1978 concentrated on the design of continuous cast hot cut-off equipment for use in steelmaking and the manufacture of automatic gas mixers for blending gases in welding and heat treating applications.

## Metals and Carbon

The steel, foundry and aluminum industries operated at higher levels in 1978. As a result and despite a strike at the Beauharnois metals plant which continued at year-end, domestic ferroalloy sales recorded strong gains. As well, the deterioration in the value of the Canadian dollar enabled Union Carbide to improve ferroalloy exports by a third over the previous year.

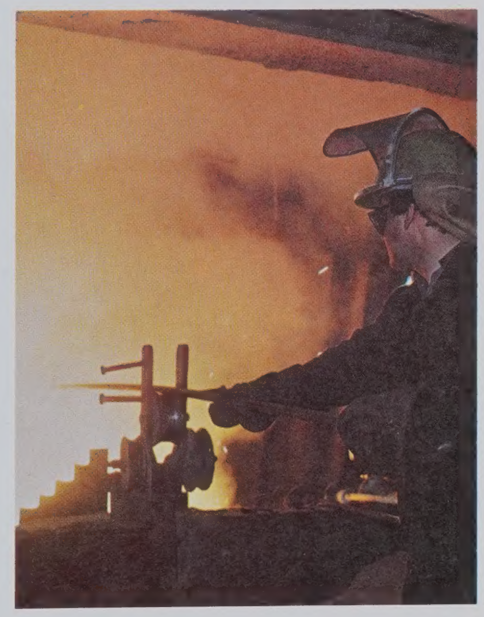
Although there was some price strengthening in major product lines late in the year, pricing was generally weak due to a world-wide surplus in ferroalloy supply.

Carbon products enjoyed markedly higher graphite electrode sales as a result of a greatly improved electric furnace operating rate in the steel industry, coupled with a successful anti-dumping action against Japanese suppliers. The demand for carbon electrodes, used in ferroalloy furnaces, also rose substantially, allowing Union Carbide to utilize higher levels of production capacity at its Welland, Ontario, carbon and graphite plant. A $6 million expansion to improve graphite electrode production capability was completed at Welland during the year.

Marginal improvement is anticipated for metals sales in 1979 while carbon products demand should moderate because of anticipated lower demand for graphite used in electrochemical applications.

Sales of EVEREADY batteries advanced in the face of a retail market that remained essentially flat, a situation which is projected to continue in 1979.

*Electrodes in a large steel furnace form a backdrop – and the talking point – for a conversation between Sandy Johnstone (left), a carbon products district sales manager, and the superintendent of a Quebec steel plant. Union Carbide is the Canadian steel industry's major supplier of graphite electrodes, which carry massive electric currents into ultra-high-powered electric arc furnaces.*



*Daniel Rondeau, an operator at the Chicoutimi, Quebec, metals plant, opens the tap hole of a furnace to release molten ferrosilicon ready for casting. Ferrosilicon is used mainly as a deoxidizing and alloying agent in the manufacture of steel and cast iron.*

# Resources and Responsibilities

## Employees

Programs that help develop employees' managerial skills, improve employee benefits and promote health and safety conditions and practices, both on and off the job, were further expanded in 1978.

Initial training under the Union Carbide Management System, which provides employees with a broader understanding of their responsibilities and their role in the overall company organization, was completed in the early part of the year. Increased emphasis was placed on using this system more skillfully in day-to-day work situations and on developing effectiveness in selected areas of management. About 800 employees took part in one or more of these development programs during the year.

Employee benefits were further improved with the provision of three weeks paid vacation in the third year of employment, rather than the fifth. To encourage bilingualism among employees, Union Carbide undertook to pay the full cost of second-language courses in English or French.

The safety of employees remained a high priority program and, in 1978, most of the Company's major plants stayed at or near the top of their industrial categories in safety performance.

The formation of a Health and Environmental Affairs Department consolidated all of Union Carbide's programs relating to medical services, occupational health, industrial hygiene, product safety and environmental matters and will add greater co-ordination and thrust to these efforts.

## The Environment

The quality of the environment around Union Carbide's manufacturing plants is safeguarded chiefly by means of the Company's Environmental Impact Analysis, which is designed to scrutinize and periodically re-examine all facilities and expansions, as well as all products and processes, for any possible effects on the environment.

During the year, new and improved emission control equipment was installed at a number of plants and, in keeping with Union Carbide's commitment in this area, Company representatives served on several industry-government task forces organized to develop new environmental regulations.

A company-wide product safety program, implemented in 1978, will provide a more meticulous way of detecting and dealing with any possible safety, health or environmental hazards that might be caused by Union Carbide products during any stage of their manufacture, distribution or end use.

The industrial hygiene program was intensified in support of the Company's policy of ensuring that workplaces are free of any possible health hazards.

## Energy

Since the price and availability of all sources of energy and petroleum-derived raw materials have a considerable effect on the operating costs of Union Carbide's manufacturing operations, the Company is concerned that Canada utilize its favourable natural resource position to reduce dependency on foreign imports of upgraded products and stimulate a stronger industrial economy.

The Company conducted an aggressive program to inform governments and other bodies of its views on critical energy issues, stressing the need for an immediate, long-term strategy to develop the country's rich resources, increase the domestic upgrading of these resources into value-added products and establish a hydrocarbon price structure that would keep the Canadian petrochemical industry competitive with world producers.

In its energy strategy proposals, Union Carbide also underlined the importance of increased conservation and, for its part, the Company achieved energy conservation goals in 1978 that were originally established for 1980.

*Geologist Mike Burson is part of a Vancouver-based exploration team seeking out viable mineral deposits, mainly uranium and tungsten, in several parts of Western and Northern Canada. Mineral exploration is conducted under an arrangement with Union Carbide Corporation whereby Union Carbide Canada funds 25 per cent of exploration in Canada in return for a 25 per cent equity in all Canadian ventures, including joint projects with other companies.*

*Doris Lavoie, a metals sales service representative in Toronto, spent two lunch-hours a week for six months teaching intermediate French to her English-speaking colleagues while a fellow employee conducted a beginners' course. About 30 individuals decided to learn French this way in the interests of good communication with their counterparts in Quebec, where the Company's two metals plants are located.*

# Consolidated Statement of Income and Retained Earnings

| | (thousands of dollars) | | | |
|---|---|---|---|---|
| | **Year Ended December 31, 1978** | | Year Ended December 31, 1977 | |
| Sales | | **$528,207** | | $406,536 |
| Cost of Goods Sold | **$420,990** | | | 314,315 |
| Selling, General and Administrative Expenses | **39,608** | | | 39,096 |
| Depreciation and Amortization | **24,992** | | | 18,104 |
| Interest on Long-Term Debt | **15,898** | | | 16,217 |
| | | **501,488** | | 387,732 |
| | | **26,719** | | 18,804 |
| Investment Income | **2,601** | | | 5,831 |
| Gain on Disposal of Capital Assets | **240** | | | 1,273 |
| | | **2,841** | | 7,104 |
| | | **29,560** | | 25,908 |
| Income Taxes | | **10,576** | | 6,600 |
| | | **18,984** | | 19,308 |
| Share of Income of Companies carried at Equity | | **1,105** | | 1,192 |
| Net Income | | **20,089** | | 20,500 |
| Net Income per Common Share | **$1.67** | | $1.94 | |
| Retained Earnings at January 1 | | **184,940** | | 174,244 |
| | | **205,029** | | 194,744 |
| Dividends Paid – Preferred | **3,359** | | | 804 |
| – Common | **9,000** | | | 9,000 |
| | | **12,359** | | 9,804 |
| **Retained Earnings at December 31** | | **$192,670** | | $184,940 |

The notes on pages 13, 14 and 15 are an integral part of this statement.

# Consolidated Statement of Changes in Financial Position

(thousands of dollars)

| | Year Ended December 31, 1978 | Year Ended December 31, 1977 |
|---|---|---|
| **Source of Funds** | | |
| Operations | | |
| Net Income | $ 20,089 | $ 20,500 |
| Items not affecting Working Capital | | |
| Depreciation and Amortization | 24,992 | 18,104 |
| Transfer to Deferred Credits | 10,437 | 7,591 |
| Share of Unremitted Earnings of Companies carried at Equity | (73) | (140) |
| Gain on Disposal of Fixed Assets | (240) | (873) |
| Working Capital Provided from Operations | 55,205 | 45,182 |
| Net Proceeds from Preferred Share Issue | – | 59,700 |
| Proceeds on Disposal of Fixed Assets | 621 | 984 |
| Other – Net | 544 | 478 |
| | 56,370 | 106,344 |
| **Application of Funds** | | |
| Acquisition of Fixed Assets | 46,270 | 82,299 |
| Dividends Paid | 12,359 | 9,804 |
| Increase in Investments | 6,620 | 17,600 |
| Current Portion Long-Term Debt | 2,250 | 2,250 |
| Acquisition of Goodwill | 174 | 597 |
| | 67,673 | 112,550 |
| **Decrease in Working Capital** | (11,303) | (6,206) |
| **Working Capital at beginning of year** | 130,083 | 136,289 |
| **Working Capital at end of year** | $118,780 | $130,083 |
| **Changes in Components of Working Capital** | | |
| Cash and Marketable Securities | $ (2,698) | (23,132) |
| Receivables | 17,677 | 5,351 |
| Inventories | 11,120 | 7,513 |
| Prepaid Expense | 18 | 1,292 |
| Payables | (37,321) | 1,735 |
| Income and Other Taxes | (99) | 1,035 |
| | $ (11,303) | $ (6,206) |

The notes on pages 13, 14 and 15 are an integral part of this statement.

# Consolidated Balance Sheet

| | (thousands of dollars)<br>**December 31, 1978** | <br>December 31, 1977 |
|---|---|---|
| **Assets** | | |
| Current Assets | | |
| Cash and Marketable Securities | **$ 14,770** | $ 17,468 |
| Receivables | **89,026** | 71,349 |
| Inventories | **112,390** | 101,270 |
| Prepaid Expense | **5,207** | 5,189 |
| Total Current Assets | **221,393** | 195,276 |
| Fixed Assets | **392,304** | 371,134 |
| Investments | **55,382** | 48,689 |
| Other Assets | **3,589** | 4,232 |
| | **$672,668** | $619,331 |
| **Liabilities** | | |
| Current Liabilities | | |
| Payables | **$100,861** | $ 63,540 |
| Income and Other Taxes | **1,752** | 1,653 |
| Total Current Liabilities | **102,613** | 65,193 |
| Deferred Credits | **102,285** | 91,848 |
| Long-Term Debt | **155,500** | 157,750 |
| | **360,398** | 314,791 |
| **Shareholders' Equity** | | |
| Capital Stock | | |
| Authorized | | |
| 6,000,000 Preferred Shares | | |
| 12,500,000 Common Shares | | |
| Issued | | |
| 2,400,000 Preferred Shares | **60,000** | 60,000 |
| 10,000,000 Common Shares | **59,600** | 59,600 |
| Retained Earnings | **192,670** | 184,940 |
| | **312,270** | 304,540 |
| | **$672,668** | $619,331 |

Signed on behalf of the Board
J. S. Dewar, Director
J. de Billy, Director

UNION CARBIDE CANADA LIMITED
and consolidated subsidiaries

The notes on pages 13, 14 and 15 are an integral part of this statement.

**AUDITORS' REPORT**

To the Shareholders of Union Carbide Canada Limited

We have examined the consolidated balance sheet of Union Carbide Canada Limited as at December 31, 1978 and the consolidated statements of income and retained earnings and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the company as at December 31, 1978 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Toronto, Canada
January 24, 1979

Hurdman and Cranstoun
Chartered Accountants

# Notes to the 1978 Financial Statements

(thousands of dollars)

## 1. Supplementary Balance Sheet Detail

| | | December 31, 1978 | December 31, 1977 |
|---|---|---|---|
| Cash and Marketable Securities | Cash and Deposits | $ 5,814 | $ 12,516 |
| | Short-Term Securities | 8,956 | 4,952 |
| | | 14,770 | 17,468 |
| Receivables | Trade | 75,623 | 56,430 |
| | Affiliated Companies – Trade | 7,752 | 5,349 |
| | – Other | – | 447 |
| | Income Taxes Recoverable | 232 | 4,748 |
| | Miscellaneous | 5,419 | 4,375 |
| | | 89,026 | 71,349 |
| Inventories | Raw Materials and Supplies | 25,784 | 22,707 |
| | Work in Process | 36,545 | 29,562 |
| | Finished Goods | 50,061 | 49,001 |
| | | 112,390 | 101,270 |
| Fixed Assets | Land | 7,762 | 7,761 |
| | Buildings | 87,253 | 80,856 |
| | Machinery and Equipment | 493,729 | 458,930 |
| | Total Gross Fixed Investment | 588,744 | 547,547 |
| | Accumulated Depreciation | 196,440 | 176,413 |
| | Net Fixed Investment | 392,304 | 371,134 |
| Investments | Companies carried at equity in net assets | 5,870 | 6,378 |
| | Petrosar Limited | 44,915 | 37,935 |
| | Other Investments | 4,597 | 4,376 |
| | | 55,382 | 48,689 |
| Other Assets | Unamortized Commissions and Debt Discount | 2,544 | 2,941 |
| | Deferred Charges | 360 | 507 |
| | Patents, Trade Marks & Goodwill at unamortized cost | 685 | 784 |
| | | 3,589 | 4,232 |
| Payables | Affiliated Companies | 34,603 | 17,549 |
| | Current Portion Long-Term Debt | 600 | 1,550 |
| | Notes Payable – Affiliates | 7,831 | – |
| | Other | 57,827 | 44,441 |
| | | 100,861 | 63,540 |
| Deferred Credits | Income Taxes | 95,311 | 84,991 |
| | Investment Tax Credit | 6,974 | 6,857 |
| | | 102,285 | 91,848 |
| Long-Term Debt | a) 8⅜% Unsecured Debentures maturing May 1, 1992. Mandatory sinking fund payments of $750,000 annually to May 1, 1991. | 23,500 | 24,250 |
| | b) 10¾% Unsecured Debentures maturing June 15, 1995. Mandatory sinking fund payments of $3,000,000 annually commencing June 15, 1981. | 75,000 | 75,000 |
| | c) 9¼% Unsecured Notes maturing May 1, 1982. | 30,000 | 30,000 |

| | | |
|---|---|---|
| d) 9¾% Unsecured Debentures maturing May 1, 1986. Mandatory sinking fund payments of $1,500,000 annually to May 1, 1985. | **27,000** | 28,500 |
| | **155,500** | 157,750 |

Maturities and sinking fund requirements for the years 1979 through 1983 are $2,250,000, $2,250,000, $5,250,000, $35,250,000 and $5,250,000 respectively.

### Capital Stock

Authorized

6,000,000 preferred shares issuable in series with a par value for each series to be fixed by the directors at not less than $10 nor more than $50 per share but not exceeding in the aggregate $150,000,000.

12,500,000 common shares without nominal or par value.

Issued

| | | |
|---|---|---|
| 2,400,000 Preferred Shares Series A | **60,000** | 60,000 |
| 10,000,000 Common Shares | **59,600** | 59,600 |
| | **119,600** | 119,600 |

The 2,400,000 preferred shares Series A have a par value of $25 each and a cumulative preferential floating rate dividend adjusted and payable quarterly equal to the sum of 1¼% and one-half of bank prime interest rate. They are redeemable at par at the option of the Company after but not before August 31, 1980 and are retractable at par at the option of the holder on June 1, 1987.

## 2. Summary of Accounting Policies

### Principles of Consolidation

The consolidated financial statements include the assets, liabilities, revenues and expenses of all significant subsidiaries. Investment in companies 25 to 50 per cent owned are carried at equity in net assets and the Company's share of their earnings is included in the income statement. The excess purchase price over equity value at time of acquisition (i.e., goodwill) is amortized over five years Other investments (including Petrosar Limited referred to in Note 3) are carried at cost. The following is a financial summary of those companies carried at equity:

| | (thousands of dollars)<br>**December 31, 1978** | December 31, 1977 |
|---|---|---|
| Total Assets | **$35,555** | $30,198 |
| Less Total Liabilities | **22,238** | 17,091 |
| Net Assets | **13,317** | 13,107 |
| UCCL Equity in Net Assets | **5,870** | 6,378 |
| UCCL Equity in Net Income | **1,105** | 1,192 |

### Short-Term Securities

Short-Term securities are carried at cost, which approximates market.

### Inventories

Inventory values, which do not include depreciation of fixed assets, are stated at cost and net realizable value, whichever is lower. Cost is determined on the average cost method.

### Fixed Assets and Depreciation

The Company carries fixed assets at cost. Expenditures for replacements are capitalized and the replaced items are retired. Maintenance and repairs are charged to operations. The Company uses straight-line depreciation for financial accounting purposes. Rates are based on estimates of useful life for each group of depreciable fixed assets. Depreciation is not charged on new assets until they become operative. Gain or loss on disposal of fixed assets is calculated on the remaining net book value at the time of disposal and is reflected in income.

### Research and Development

Research and development costs are charged to cost of goods sold as incurred.

### Income Taxes

The Company uses the deferral method of tax allocation to provide for income taxes. The time in which transactions affect taxable income frequently differs from the time in which they enter into the determination of income in the financial statements. The cumulative differences between taxes provided and taxes payable are shown under "Deferred Credits" on the Consolidated Balance Sheet. Investment tax credits are amortized over a ten-year period with the annual amortized amount accounted for as a reduction in the provision for income taxes.

### Employee Retirement Program

The actuarial liability for past service costs under the retirement program, estimated to be $27,840,000 at January 1, 1978, will be amortized over a period ending in 1992 in accordance with current pension legislation.

### Translation of Foreign Currencies

Foreign currencies are translated into Canadian dollars as follows:

(a) Cash, current receivables and payables at year-end exchange rates.

(b) All other assets and liabilities as well as income and expenses at rates prevailing at the month end prior to the transaction.

Realized and unrealized exchange gains and losses are credited or charged to income.

## 3. Commitments

a) The Company has a 20% equity interest in Petrosar Limited with which the Company has entered into long term take or pay contracts for the purchase of ethylene and atmospheric residual oil. The atmospheric residual oil contract was entered into by the Company as accommodation purchaser for Union Carbide Corporation which has undertaken to protect the Company from all losses which may be incurred thereunder. The Company is committed to advance 30.4% of any funds necessary to make up any deficiency in meeting certain of the financial obligations of Petrosar Limited. During the year the Company subscribed for $28,213,500 of preference shares of Petrosar Limited, replacing its subordinated debentures, and for an additional $6,701,500 of preference shares of Petrosar Limited, in each case ranking in all respects behind the class A preference shares held by Petrosar's bankers. The class A preference shares carry the right to a cumulative preferential floating rate dividend and are retractable over a period expiring December 31, 1987. The Company is committed to purchase the right to such dividend or to purchase the said shares from the banks to the extent of 30.4% thereof if Petrosar should default in meeting certain conditions.

Union Carbide Corporation has agreed to advance or cause to be advanced to the Company an amount equal to 33.2% of any funds required to be paid pursuant to the aforementioned financial commitments of the Company.

b) Commitments at December 31, 1978 for capital expenditures amounted to approximately $13.8 million.

## 4. Directors' and Officers' Remuneration

In 1978, four directors received aggregate remuneration of $34,100 as directors and seven directors received no remuneration as directors. Ten officers earned aggregate remuneration of $932,965 as officers. Five officers were also directors.

## 5. Sales

Consolidated sales by class of business and proportion of the total were:

| | **1978** | **% of Total** | 1977 | % of Total | % Change from 1977 |
|---|---|---|---|---|---|
| Chemicals | **$ 98,120** | **18** | $ 63,242 | 16 | +55 |
| Plastics | **194,814** | **37** | 142,039 | 35 | +37 |
| Gases | **72,992** | **14** | 63,187 | 15 | +16 |
| Metals and Carbon | **162,281** | **31** | 138,068 | 34 | +18 |
| | **$528,207** | **100** | $406,536 | 100 | +30 |

# Five Year Summary

| | | **1978** | 1977 | 1976 | 1975 | 1974 |
|---|---|---|---|---|---|---|
| **Sales** | | | | | | |
| | Chemicals | **$ 98,120** | $ 63,242 | $ 52,782 | $ 56,800 | $ 52,878 |
| | Plastics | **194,814** | 142,039 | 135,864 | 119,726 | 110,146 |
| | Gases | **72,992** | 63,187 | 68,648 | 73,770 | 54,155 |
| | Metals and Carbon | **162,281** | 138,068 | 136,441 | 127,876 | 124,178 |
| | | **$528,207** | $406,536 | $393,735 | $378,172 | $341,357 |
| **Net Income** | | **20,089** | 20,500 | 32,121 | 43,136 | 45,085 |
| **Net Income** after provision for dividends on preferred shares | | **16,730** | 19,428 | 32,121 | 43,136 | 45,085 |
| | % of Sales | **3.2%** | 4.8% | 8.2% | 11.4% | 13.2% |
| | Per Common Share | **1.67** | 1.94 | 3.21 | 4.31 | 4.51 |
| **Total Assets** | | **672,668** | 619,331 | 546,064 | 431,852 | 316,528 |
| **Working Capital** | | **118,780** | 130,083 | 136,289 | 136,439 | 77,212 |
| **Construction Expenditures** | | **46,270** | 82,299 | 110,207 | 74,784 | 46,767 |
| **Depreciation and Amortization** | | **24,992** | 18,104 | 17,012 | 14,811 | 13,950 |
| **Employee Data** | | | | | | |
| | Wages and Salaries | **85,880** | 80,621 | 75,168 | 62,845 | 56,535 |
| | Average Number of Employees | **4,704** | 4,695 | 4,819 | 4,858 | 4,943 |

(dollars in thousands – except per share figures)

# Plants and Products

## Carbon

Welland and Toronto, Ontario

Electric Arc Furnace Electrodes/Cathode Blocks/Electrolytic Cell Anodes/Furnace Linings/Electric Motor and Generator Brushes/Theatre Projector Carbons/Carbon and Graphite Products for chemical, electrical, mechanical and metallurgical applications

## Chemicals

Montreal East, Quebec

UNION CARBIDE Organic Chemicals, including Ethylene Oxide, Ethanolamines, Glycols and Glycol Ethers/Silicone Chemicals, Resins, Oils and Elastomers/Urethane Foam Intermediates/Vinyl Coating Resins/CELLOSIZE/CARBOWAX Polyethylene Glycols/UCON Lubricants/UCAR Latices/Propylene

## Consumer Products

Toronto, Orangeville and Walkerton, Ontario/Cowansville, Quebec

EVEREADY Flashlight, Transistor, Heavy Duty, Alkaline, Watch, Hearing Aid, Nickel Cadmium and other Batteries/EVEREADY Flashlights, Lanterns and Lamps/PRESTONE II Anti-Freeze and Summer Coolant/PRESTONE Car Care Products/GLAD Food Wrap, Bags and Garbage Bags/GLAD Cupboard Unit

## Gases

Vancouver and Vernon, British Columbia/Calgary and Edmonton, Alberta/Saskatoon, Saskatchewan/Selkirk, Thompson and Transcona, Manitoba/Thunder Bay, Sault Ste. Marie, London, Mississauga, Oakville, Sarnia and Ottawa, Ontario/Noranda, Arvida, Montreal, Montreal East, Tracy, Lauzon and Sept-Iles, Quebec/Saint John, New Brunswick/Halifax, Nova Scotia

LINDE Oxygen, Nitrogen, Hydrogen, Argon, Helium, Carbon Dioxide and Rare Gases/Specialty Gas Mixtures/Fumigants and Sterilants/Calcium Carbide and Acetylene/Gas and Electric Welding, Cutting, Forming and Heat-Treating Apparatus/Welding Rods, Wire and Electrodes/Power Sources/Heat Exchangers/ Steel-Conditioning Machines/Rock-Piercing and Shaping Equipment/Medical Gases, Inhalation and Suction Therapy Equipment/Distillation Trays/Cryogenic Equipment/Food Freezing Equipment/Molecular Sieves/UNOX System for secondary wastewater treatment

## Metals

Beauharnois and Chicoutimi, Quebec

Ferroalloys, Alloying Metals, Pure Metals and Metal Compounds produced from the elements Boron, Calcium, Chromium, Manganese, Silicon, Titanium, Tungsten, Vanadium and Zirconium

## Plastics

Lindsay and Moore Township, Ontario/Cowansville and Montreal East, Quebec

UNION CARBIDE Low- and High-Density Polyethylene Resins/Co-Polymers/Vulcanizable and Semi-Conductive Compounds/Polyethylene Film/Polyethylene Powders/Cellular Polyethylene/Polysulfone Resins/VISKING Cellulose Food Casings/VISTEN AND PERFLEX S Specialty Films

## Principal operating subsidiaries

Dominion Viscose Products Limited – cellulose food casings/Smelter Power Corporation – hydro-electric power

**Union Carbide Canada Limited**

| | |
|---|---|
| **Head Office** | 123 Eglinton Avenue East<br>Toronto, Canada<br>M4P 1J3 |
| **Stock Transfer Agent and Registrar** | Canada Permanent Trust Company<br>Halifax, Montreal, Toronto, Winnipeg<br>and Vancouver |
| **Stock Exchange Listings** | Montreal and Toronto |
| **Auditors** | Hurdman and Cranstoun<br>Toronto |